



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[Notice 13-111]

National Environmental Policy Act; Mars 2020 Mission

AGENCY: National Aeronautics and Space Administration (NASA)

ACTION: Notice of intent to prepare an environmental impact statement (EIS) for the Mars 2020 mission and to conduct scoping for the EIS.

SUMMARY: Pursuant to the National Environmental Policy Act of 1969, as amended (NEPA) (42 U.S.C. 4321, et seq.), the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR parts 1500–1508), and NASA policy and procedures (14 CFR part 1216 subpart 1216.3), NASA intends to conduct scoping and prepare an environmental impact statement (EIS) for the Mars 2020 mission. NASA is seeking input on environmental issues and concerns associated with the proposed action, as well as alternatives that should be addressed in the EIS. The mission would fly a near-duplicate of the Mars Science Laboratory mission's rover, Curiosity, outfitted with new scientific instruments. The mission would be designed to seek signs of past life on Mars, collect and store a compelling set of soil and rock samples that could be returned to Earth in the future, and test new technology to benefit future robotic and human exploration of Mars.

The Proposed Action is to continue preparation for and implement the Mars 2020 mission. The Mars 2020 mission would launch the spacecraft from the Cape Canaveral Air Force Station (CCAFS), Brevard County, Florida during the summer of 2020. NASA would select the launch vehicle for the mission through NASA's launch services procurement process. There is a backup

launch opportunity for the mission during the summer of 2022. The baseline mission plan would include the use of one multi-mission radioisotope thermoelectric generator (MMRTG) for rover electrical power and temperature control while on the surface of Mars. Some science instruments may require the use of small quantities of radioactive material for instrument calibration or for experimentation. Environmental impacts to be considered in the EIS are those impacts associated with a normal launch from CCAFS, and radiological and non-radiological risks associated with a potential launch accident.

DATES: Interested parties are invited to submit comments on environmental concerns in writing on or before October 30, 2013 to assure full consideration during the scoping process. NASA will conduct scoping meetings to solicit and collect comments on the scope of the Mars 2020 mission EIS as well as the Proposed Action in October 2013.

ADDRESSES: Written comments should be addressed to Mr. George Tahu, Planetary Science Division, Science Mission Directorate, Mail Suite 3E46, NASA Headquarters, Washington, DC 20546–0001. Comments by electronic mail may be sent to mars2020-nepa@lists.nasa.gov. Those persons requesting to receive a hard copy of the Mars 2020 Draft EIS should also provide a valid US Postal Service mailing address.

FOR FURTHER INFORMATION CONTACT:

Mr. George Tahu, by telephone at 202–358–0016 or by electronic mail at mars2020-nepa@lists.nasa.gov.

Additional information is available at

<http://www.nasa.gov/agency/nepa/mars2020eis>.

SUPPLEMENTARY INFORMATION: NASA seeks to continue scientific investigations of Mars with a long-term landed mission to explore the planet’s surface. On April 12, 2005, in the

Federal Register (70 FR 19102), NASA published the Notice of Availability for Final Programmatic EIS (PEIS) for the Mars Exploration Program (MEP). The Record of Decision (ROD) for the MEP PEIS was signed on June 22, 2005, enabling continued planning for the MEP, which represents NASA's overall plans for the robotic exploration of Mars through 2020. The PEIS for the MEP encompasses the launch of at least one spacecraft to Mars during each favorable launch opportunity, which occurs approximately every 26 months. The Mars 2020 EIS will focus on reasonable alternatives to implement the purpose and need of the Mars 2020 mission and the potential environmental impacts associated with each.

NASA's proposed Mars 2020 mission would use the proven design and technology developed for the Mars Science Laboratory mission and rover (Curiosity) that arrived at Mars in August 2012. NASA would select a high priority, scientifically important landing site based upon data from past and current missions.

The rover would be equipped with new scientific instrumentation that would: a) characterize the geological processes and history of an astrobiologically relevant ancient environment on Mars; b) within the selected geological environment, assess the past habitability of the landing region and search for evidence of past life; c) assemble a scientifically selected, well-documented, cache of samples for potential future return to the Earth; d) further the preparation for future human exploration of Mars; and e) demonstrate improved technical capabilities for landing and operating on the surface of Mars to benefit future Mars missions.

It is anticipated that the electrical, thermal and operational requirements of the rover would require a radioisotope power source (MMRTG) using plutonium-238. This single MMRTG would provide adequate power to operate the rover, similar to the Mars Curiosity rover. Some of the waste heat from the MMRTG would be used for temperature control of the rover electronics,

science instruments, and other sensitive components. Alternatives to the Proposed Action addressed in this EIS will include, but are not necessarily limited to, (1) the use of alternative sources of on-board power and heat (including solar energy); and (2) the No Action Alternative. The Mars 2020 EIS will address the purpose and need for the proposed Mars 2020 mission and the environmental impacts associated with its implementation. The environmental impacts of this mission are anticipated to be those associated with the normal launch of the mission. Potential consequences of accident situations will also be addressed. Environmental issues to be addressed will include, but not necessarily be limited to, air quality, water quality, flora and fauna, and potential radiological effects.

NASA plans to hold two scoping meetings to receive comments on the DEIS regarding alternatives and environmental issues to be considered in the Draft EIS. The scoping meetings are scheduled as follows:

1. Cocoa Beach, FL, Wednesday, October 9, 2013 from 6:00-8:30 p.m. at Cocoa Beach Country Club, 5000 Tom Warriner Boulevard, Cocoa Beach, FL 32931
2. Viera, FL, Thursday, October 10, 2013 from 6:00-8:30 p.m. at Brevard County Government Center, 2725 Judge Fran Jamieson Way, Viera, FL 32940.

Written public input and comments on alternatives and potential environmental impacts and concerns associated with the proposed Mars 2020 mission are hereby requested.

Calvin Williams
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Office Strategic Infrastructure